DOCUMENT RESUME

ED 179 924 CS 005 148

AUTHOR Arnold, Richard D.: Westphal, R. C., Jr.
TITLE Reading Skills of Good, Average and Poor Readers in Three Ethnic Groups.
PUB DATE Nov 79
NOTE 20p.: Paper presented at the Annual Meeting of the Pacific Reading Research Symposium (2nd, Tucson, AZ, November 2, 1979)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Cultural Factors: Elementary Education: *Ethnic Groups: *Ethnicity: *Reading Ability: *Reading Achievement: *Reading Research: *Reading Skills: Reading Tests

ABSTRACT

Stanford Diagnostic Reading Tests and The Wide Range Achievement Tests were administered to 307 second, fourth, and sixth grade students to study the reading subskills of blacks, Latinos, and Asians/whites. An analysis of variance tested main effects of ethnicity, reading levels (good, average, and poor), and interaction effects. Main effects of ethnicity were not significant in 25 of 29 hypotheses. Main effects of reading levels were significant in 27 of the 29 hypotheses. No interactions were significant. When students of differing ethnicity were compared within reading levels, ethnic differences were not significant: but there were clear and consistent differences among reading levels despite ethnicity. The data suggest that blacks, Latinos, whites, and Asians read alike: there are no ethnic related differences in reading skills. (Author/RL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED179924

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Reading Skills of Good, Average and Poor Readers in Three Ethnic Groups

Richard D. Arnold, Purdue University
R. C. Westphal, Jr., Davis Unified School District, California

Paper presented at the
Annual Meeting of the Pacific Reading Research Symposium
Tuscon, Arizona
November, 1979

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Richard D. Arnold

R.C. Westphal, Jr.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS005148

National concern for the educational problems of the poor and ethnically different was stimulated by the work of Conant, (1961), Riessman, (1962), and Coleman, (1966). It became clear that Blacks, Latinos and members of other ethnic groups were deprived of educational opportunity and were not learning to read as well as members of the dominant social-ethnic groups, the white middle class. As a result of this concern, major national effort has been exerted in order to alleviate these problems and improve educational opportunities for members of various ethnic and socio-economic groups. It is clear that a great deal of progress has been made.

However, teachers continue to be concerned about providing maximum educational opportunity for all children. Special programs have been devised (Kim, Berger and Katchovil, 1962; Robinett, Rojas and Bell, 1964-1966) to meet the needs of children with varying ethnic backgrounds, but, to date, little evidence exists substantiating their value, and, in fact, many programs of this type, once considered promising, are no longer published. Furthermore, there is little or no evidence to suggest that children exhibit ethnic-specific differences in reading. It seems obvious that a child who doesn't speak English, the language of instruction, will have special problems, but these relate primarily to language, not ethnicity.

Teachers need to know whether children of differing ethnic backgrounds have specific reading strengths and weaknesses which should be taken into consideration for teaching purposes. If patterns of strengths and weaknesses can be determined, teachers can provide better and more effective instruction. Thus, the basic purpose of this study was to investigate various reading subskills of three ethnic groups to determine if differences exist in reading skill profiles among Blacks, Latinos, and Others, with others being defined as Whites and Asians.

A second concern motivating this study was to assess the relative effectiveness among ethnic groups of a reading program with a strong decoding emphasis. Beginning with the Cooperative Reading Studies (Bond and Dykstra, 1964) and Chall's book (1967), the literature seems to support the idea of emphasizing decoding skills in early grades. It appears that some educators and authors of reading materials may fail to consider the importance of teaching children basic comprehension skills. Thus, another purpose of this study was to assess the relative development of both decoding and comprehension.

The study was undertaken in a suburban San Francisco school district. The district has changed in recent years from a bedroom community for white-collar workers to a bedroom community for white and blue collar workers. Substantial numbers of minority groups have moved into the community. For some, this represents a socially upward movement. According to the latest data gathered by the school district, the population, in terms of ethnicity, consists of four major groups: Whites comprise 45% and Asians make up 19% of the school population, with the latter group including Filipino, Japanese, Chinese, Korean and Samoan students. Previous data gathered on the students indicated that Asians and Whites were very similar in reading achievement, and for this study both ethnic groups were combined into one category, Others. Black children comprise 15% of the district population and Latinos represent 19% of the district population.

Latino students are of Mexican, Puerto Rican and Cuban descent as well as those from other Central and South American countries.

Many families are on welfare or receive some form of financial assistance. The school has several Federal and State funded programs. Many students in the study were in special reading classes, but no students were included who were in special education or special bilingual education programs.

Ten elementary schools containing at least 10% Black, 10% Latino, and 10% White-Asian students were included in the study; they represent an integrated elementary school district. The population consists of second, fourth and sixth grade students in the ten schools meeting the ethnic criteria. The students had been classified as good, average, or poor readers by their classroom teachers with the assistance of the district reading specialists. Students were randomly assigned from the subject pool for each grade level to the categories of reading level and ethnic group. Complete data were gathered on 307 students; seventeen subjects were omitted from the study because of incomplete data. The distribution of the samples by each grade level can be seen in Table 1.

Insert Table 1 about here

Procedures

After attending orientation meetings on test administration, the district reading specialists administered the Wide Range Achievement Test (WRAT) (1965), Level 1, and the Stanford Diagnostic Reading Test (1968) (Level 1 for grades two and four and Level 2 for grade 6) to small groups of about 15 students. The reading test on the WRAT was individually administered. This test was scored two ways. First, it was scored according to the standard procedure and this is referred to as Words in Isolation in the study. The second score was the total

number of words read correctly and quickly (Laberge and Samuels, 1973). This score is referred to as Sight Vocabulary.

A 2x2 analysis of variance was used to analyze the main effects of ethnicity (Latino, Black, and Others), reading levels (good, average and poor readers), and interaction effects. One way analyses of variance and Tukey post priori t tests were computed to determine differences and directionally of significant main effects among the three groups when they occurred. Computations were based on raw scores.

The data were further analyzed within each ethnic group and within each reading achievement level for each of the three grade levels. The design did not permit cross grade level analyses because some tests used in sixth grade were of different levels than second and fourth grades.

Profiles were constructed to graphically present the mean raw scores of the dependent variables. These mean raw scores were converted to percentiles based on individual percentile norms. Such a procedure tends to distort the extreme ends of the percentile rankings, making lower scores appear a bit lower than they are and higher scores appear somewhat higher than they are. Readers are cautioned not to overinterpret profiles.

FINDINGS

As can be seen in Table 2, in grades 2, 4, and 6 skill differences among ethnic groups were not found in twenty five of the twenty nine tests of significance. In general, students in each ethnic group at each grade level were functioning quite similarly on the reading subskills investigated. That is, Black children read like Latino children, who in turn read like White-Asian children. Differences were found in the phonics skills of blending (grades 2 and 6), discrimination (grade 2), and syllabication (grade 6).

Insert Table 2 about here

The data in Table 2 also indicate that at the grade levels investigated significant differences did exist among good, average, and poor readers. Twenty seven of the 29 hypotheses tested revealed such differences. This general outcome indicates that there are important differences in skill development among good, average and poor readers independent of ethnicity. (Two exceptions occurred, vocabulary at fourth grade and rate of reading at sixth grade.)

Also apparent in Table 2 is the absence of interactions among ethnic groups and reading levels. This lack of interaction and the general lack of significant differences among ethnic groups strongly suggest that the differences among good, average and poor readers are indeed, more important than ethnicity, and the findings permit a closer look at reading levels within each ethnic group.

Figures 1 through 6 represent graphically the profiles of the students at grades 2, 4, and 6. Also indicated are significance levels of one-way analyses of variance on the dependent variables. For instances where significant differences were found, the Tukey HSD Test was used to determine the direction of the differences among the groups. The numerals in parentheses next to the significance levels indicate the direction of the differences as indicated in the appropriate legend. It should be noted that when comparing Table 1 with figures 1 and 3, there is not a one to one correspondence between the 2x2 ANOVA main effects and the one-way ANOVAS.

Figures 1, 2, and 3 show the profiles of Blacks, Latinos and Others at each grade level. This is a visual representation showing the lack of main effects of ethnicity portrayed in Table 4. Not only are the differences non-significant (except blending at grades 2 and 6), but the profiles are remarkably

similar in overall configuration. The variability among the three ethnic groups appears to lessen as grade levels increase. The differences are more pronounced (though non-significant) at second grade, in contrast to fourth and especially sixth grade.

Insert figures 1, 2 and 3 about here

Figures 4, 5 and 6 display the profiles of good, average, and poor readers at the three grade levels. These figures reflect the main effects of reading levels shown in Table 4. The differences among the three reading groups are significant, consistent and readily apparent in second grade, and, with two exceptions in fourth and sixth grades. The generalization drawn is that at all grade levels good readers have the highest profile, the average readers have the next highest profile, and the poor readers have the lowest profile. When profiles are compared, the patterns appear very similar in configuration, but their relative positions differ in percentile rank. These data suggest that the development of skills proceeds relatively similarly for all students regardless of ethnicity, but the magnitude of development differs for the three reading groups.

Insert figures 4, 5, and 6 about here

One consistent pattern that can be observed on all figures presented in the study is that reading comprehension and (meaning) vocabulary are relatively and markedly lower than the phonics related skills. The data suggest that for the sample studied, the comprehension aspects of reading have not been learned as well as the decoding aspects. This probably reflects on the program used in the school district, and is not unexpected since the reading program used in the

primary grades has a strong decoding emphasis.

CONCLUSIONS AND DISCUSSION

The reading skills investigated in this study were found to be very similar for all pupils regardless of ethnicity. With few exceptions, differences among the pupils from various ethnic groups were not significant. The data suggest that Blacks, Latinos, Whites and Asians read alike. If this finding is generalizable, there may be little need for reading programs designed for ethnically different children. If such programs continue to be used, the skill development facet probably should not be different from those in more widely used programs. The findings of this study do not indicate that reading skill differences are related to ethnicity.

Within each ethnic group all levels of reading achievement are represented. There were significant and educationally important differences among good, average and poor readers and every ethnic group had its share of good, average and poor readers. Variability was characteristic of the pupils within each level regardless of ethnicity. Reading profiles appear very similar in overall configurations for the three levels, but the profiles are clearly and consistently separated. This finding suggests that level of skill development separates these children, not ethnicity. When one looks at patterns within reading levels, differences begin to appear. It appears that once teachers have grouped children into good, average and poor readers, individual skill development still must be provided for.

It is evident that the students studied here have developed decoding skills to a greater extent than comprehension and meaning vocabulary skills. Socres in phonics tests were higher than scores in the other tests at all grade levels and for all reading levels. While this finding is not surprising at the second grade level, where decoding is often emphasized, it becomes a matter of major concern

at the intermediate grade levels. It seems clear that the teachers in the school district studied should devote much more effort to teaching comprehension skills. This may also be true in other school districts in which phonics, word recognition skills, etc. have been emphasized to the detriment of reading comprehension.

REFERENCES

Bond, G. L. and R. Dykstra, "The Cooperative Research Program in First-Grade Reading Instruction." Reading Research Quarterly, Vol. 2, No. 2, Summer, 1967, pp 5-142.

Chall, J., Learning to Read: The Great Debate. New York: McGraw Hill, 1967.

Coleman, J., "Equality of Educational Opportunity." Washington, D.C., Department of Health, Education and Welfare.

Conant, J. B., Slums and Suburbs. New York: McGraw Hill, 1961.

Jastak, J. F., S. W. Bijou and S. R. Jastak, Wide Range Achievement Test. Wilmington, Delaware: Guidance Associates, 1965,

Karlsen, B., R. Madden and E. F. Gardner, Stanford Diagnostic Reading Test. New York: Harcourt Brace Jovanovich, 1973.

Kim, Y., B. Berger and D. W. Kratochvil, "Product Development Report Number 14-Distar Instructional System." Palo Alto, California: American Institutes for Research, 1972.

LaBerge, D. and S. J. Samuels, "On the Automaticity of Naming Artificial Letters," Technical Report Number Seven, Minnesota Reading Research Project: University of Minnesota, 1973.

Riessman, F., The Culturally Deprived Child. New York: Harper and Row, 1962.

Robinett, R. F., P. Rojas and P. W. Bell, Miami Linguistic Readers. New York: D. C. Heath and Co., 1964-1966.

Table 1

Samples by Reading Level and
Ethnic Group for Grades Two, Four, and Six

GRADE 2

Ethnic Group	Reading Level			
	Good	Average	Poor	Total
Latino	11	11	12	34
Black	9	12	10	31
Others	12	12	11	35
Totals	32	35	33	100

GRADE 4

Ethnic Group	Reading Level			
	Good	Average	Poor	Total
Latino	10	12	10	32
Black	10	10	12	32
Others	12	12	12	36
Totals	32	34	34	100

GRADE 6

Ethnic Group	Reading Level			
	Good	Average	Poor	Total
Latino	12	11	12	35
Black	12	11	13	36
Others	12	12	12	36
Totals	36	35	37	107

Table 2

Analysis of Variance by Ethnicity and Reading Groups and Interactions
For Grades 2, 4, and 6

GRADE 2

Test Area	Anova F Ratios Significance Levels		
	Ethnicity	Read. Group	Interaction
Stanford Diagnostic			
Reading Compreh.	N.S.	.01	N.S.
Vocabulary	N.S.	.01	N.S.
Auditory Disc.	N.S.	.01	N.S.
Syllab.	N.S.	.01	N.S.
Beg.-End. Sounds	N.S.	.01	N.S.
Blending	.02	.01	N.S.
Sound Disc.	.03	.01	N.S.
Wide Range			
Sight Words	N.S.	.01	N.S.
Words Isol.	N.S.	.01	N.S.
Spelling	N.S.	.01	N.S.

GRADE 4

Test Area	Anova F Ratios Significance Levels		
	Ethnicity	Read. Group	Interaction
Stanford Diagnostic			
Reading Compreh.	N.S.	.01	N.S.
Vocabulary	N.S.	N.S.	N.S.
Auditory Disc.	N.S.	.01	N.S.
Syllab.	N.S.	.01	N.S.
Beg.-End. Sounds	N.S.	.01	N.S.
Blending	N.S.	.01	N.S.
Sound Disc.	N.S.	.01	N.S.
Wide Range			
Sight Words	N.S.	.01	N.S.
Words Isol.	N.S.	.01	N.S.
Spelling	N.S.	.01	N.S.

Table 2 (cont.)

Analysis of Variance by Ethnicity and Reading Groups and Interactions

For Grades 2, 4, and 6

GRADE 6

Test Area	Anova F Ratios Significance Levels		
	Ethnicity	Read. Group	Interaction
Stanford Diagnostic			
Reading Compreh.	N.S.	.01	N.S.
Vocabulary	N.S.	.01	N.S.
Syllab.	.04	.01	N.S.
Blending	.01	.01	N.S.
Sound Disc.	N.S.	.01	N.S.
Rate of Read.	N.S.	N.S.	N.S.
Wide Range			
Sight Words	N.S.	.01	N.S.
Words Isol.	N.S.	.01	N.S.
Spelling	N.S.	.01	N.S.

Figure 1

PROFILES BY ETHNICITY

GRADE 2

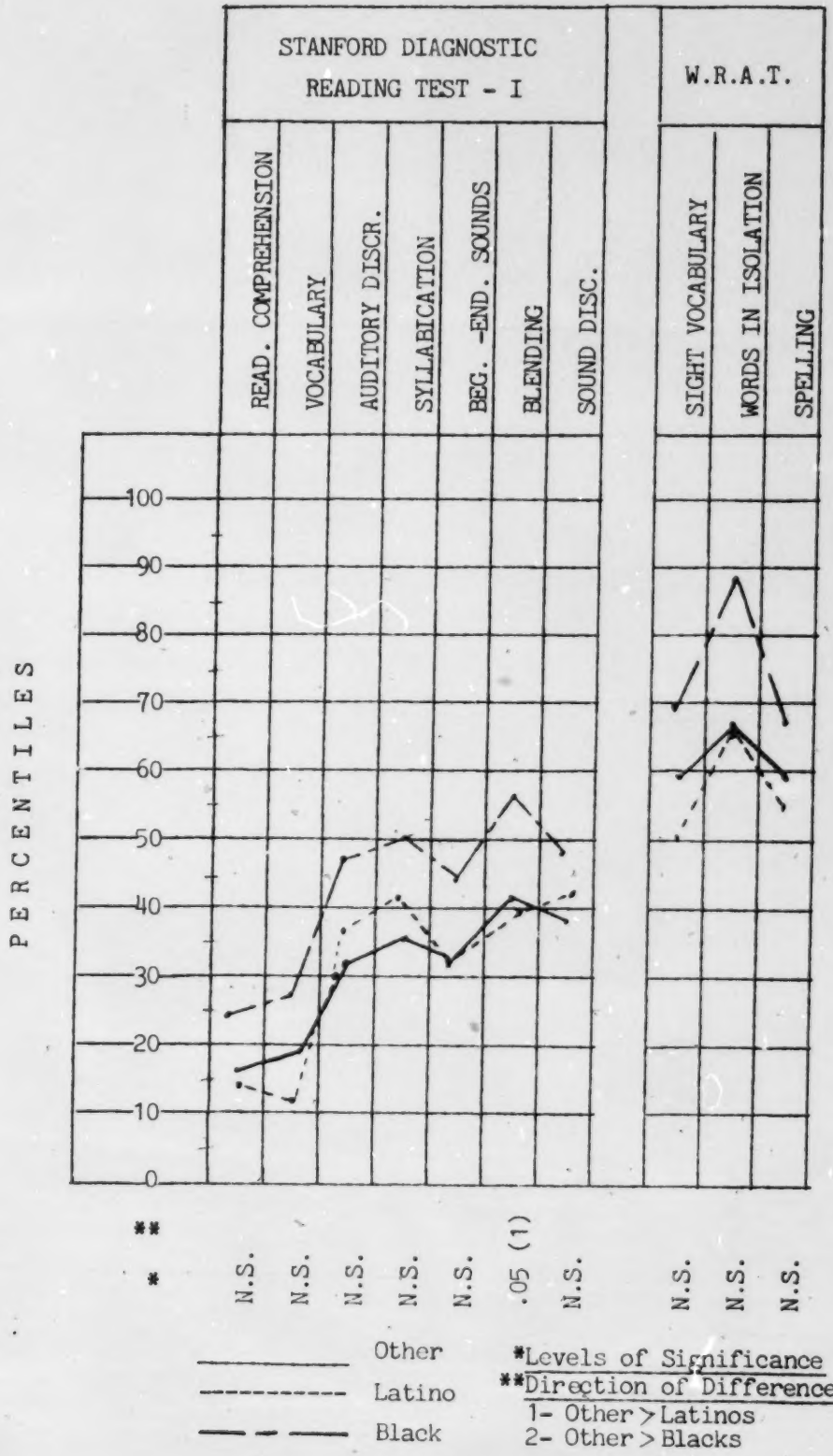

Figure 2

PROFILES BY ETHNICITY

GRADE 4

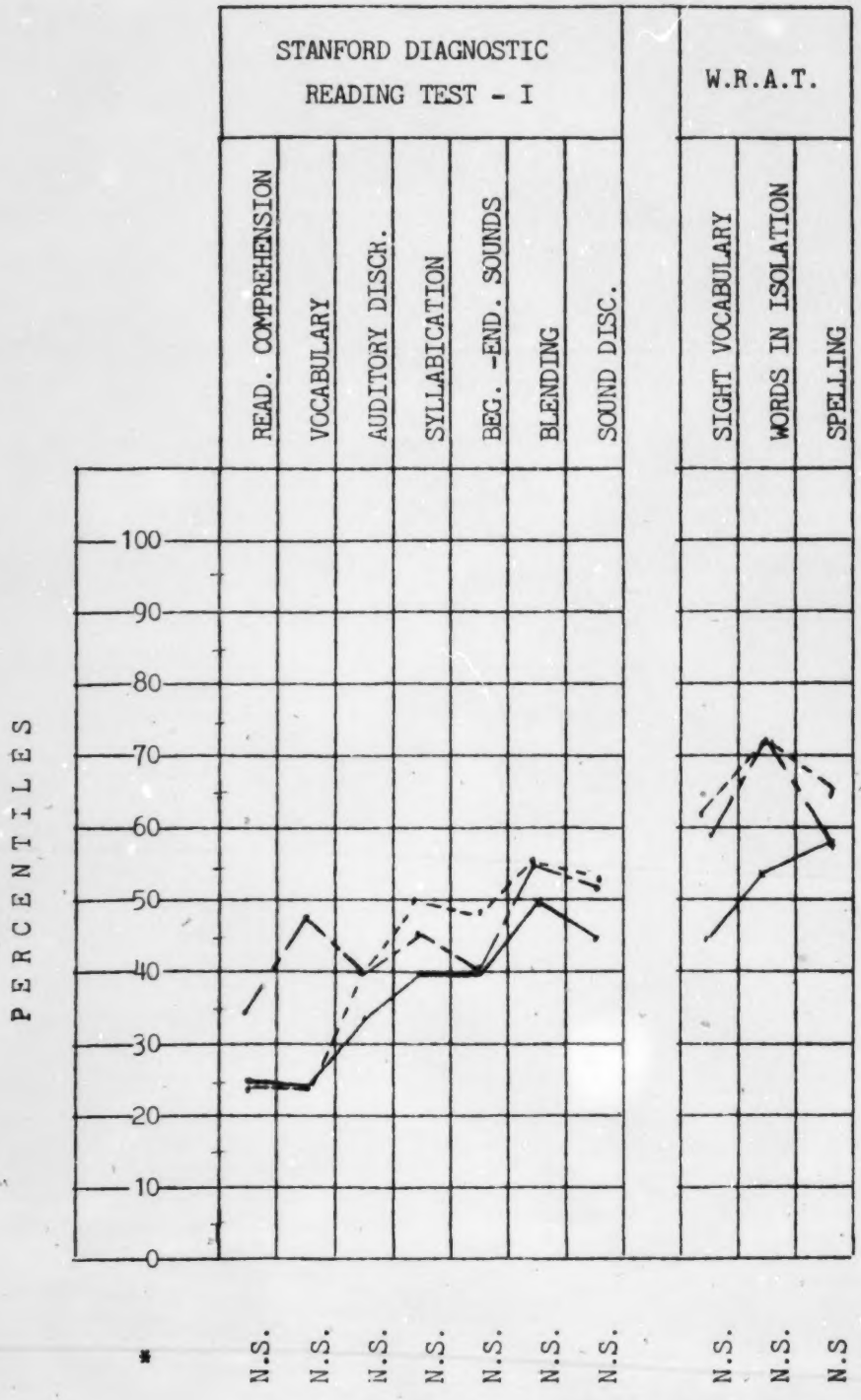

Figure 3

PROFILES BY ETHNICITY

GRADE 6

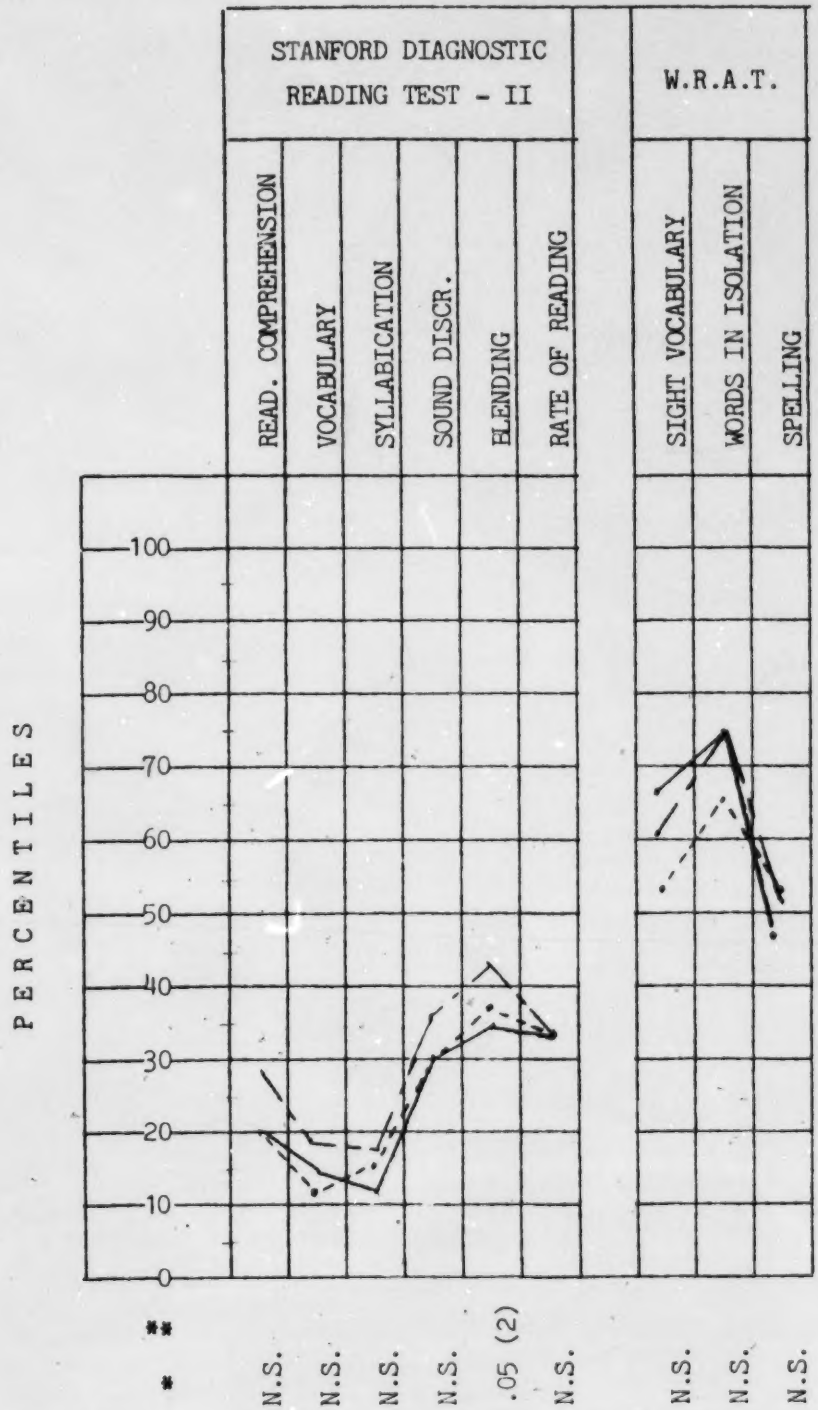

Figure 4

PROFILES BY READING GROUPS

GRADE 2

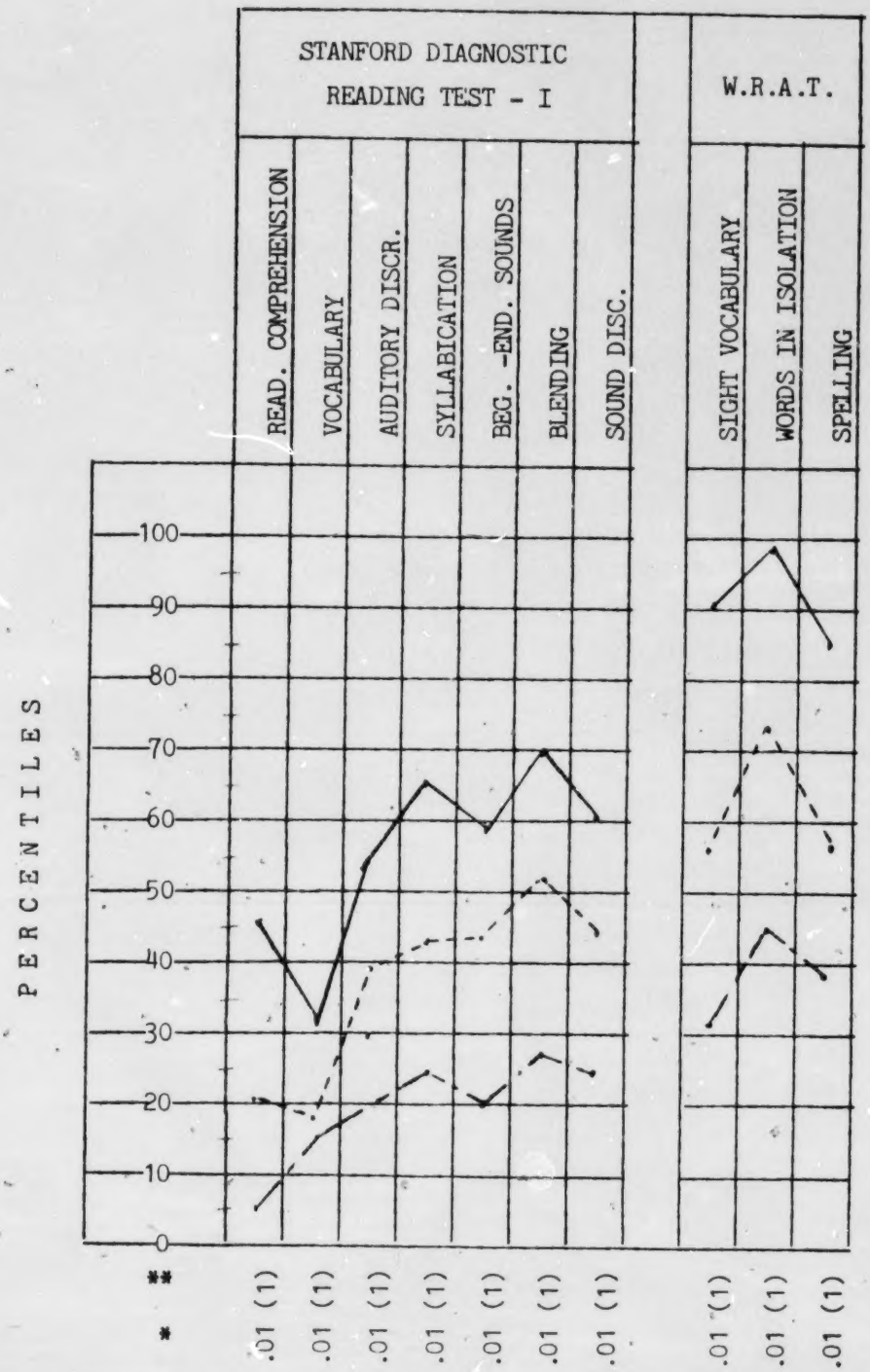

Figure 5

PROFILES BY READING GROUPS

GRADE 4

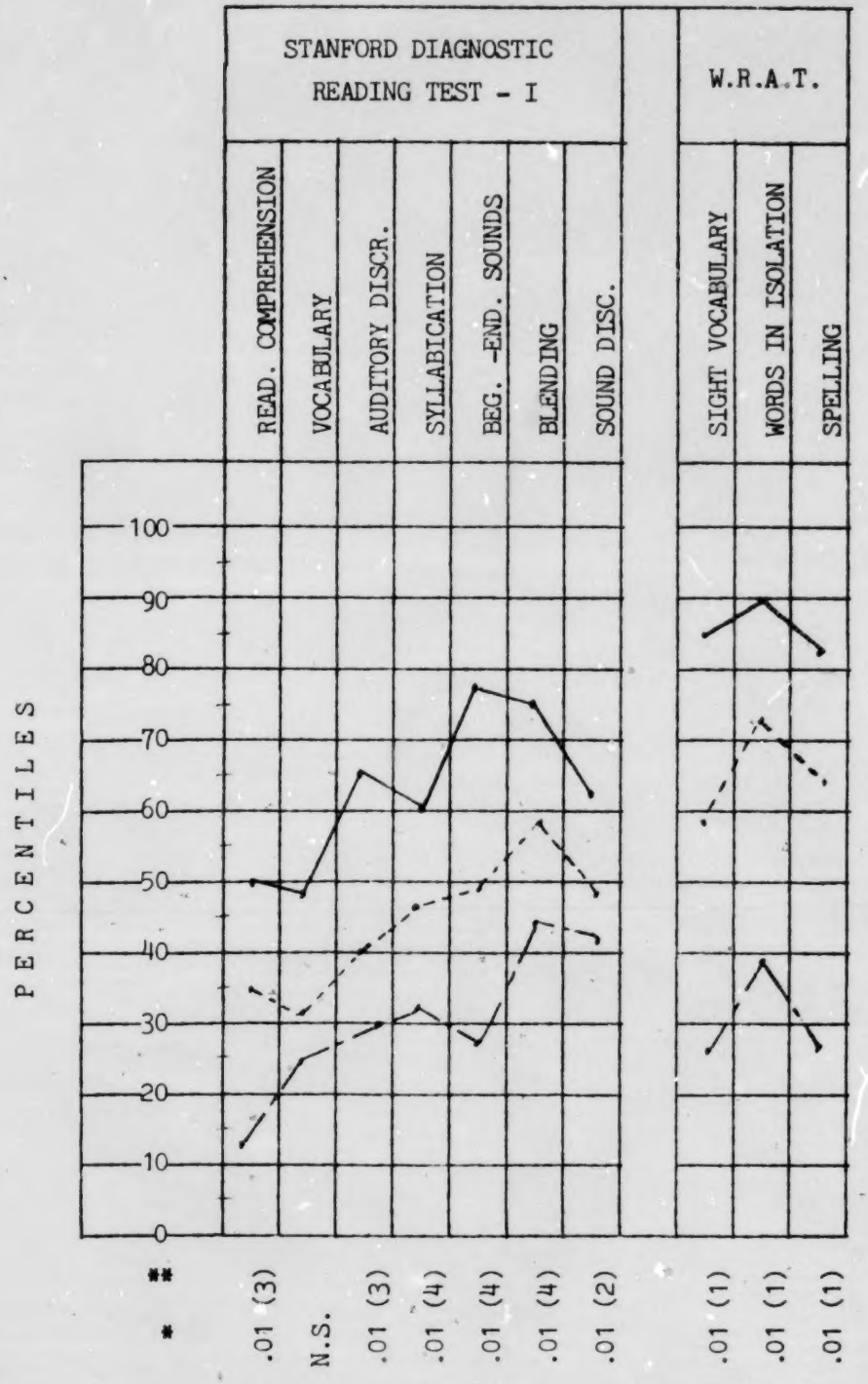

Figure 6

PROFILES BY READING GROUPS

GRADE 6